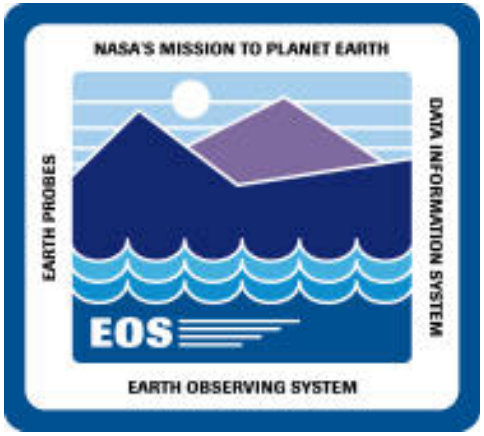

Archive Data Backup/Restore

Mark Huber

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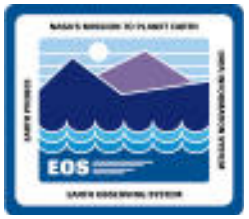
31 October 1995

Overview

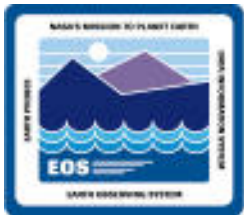


Archive Data Security

Archive Data Backups are not System Backups

- Different Criticality
- Different Frequency

Design Drivers

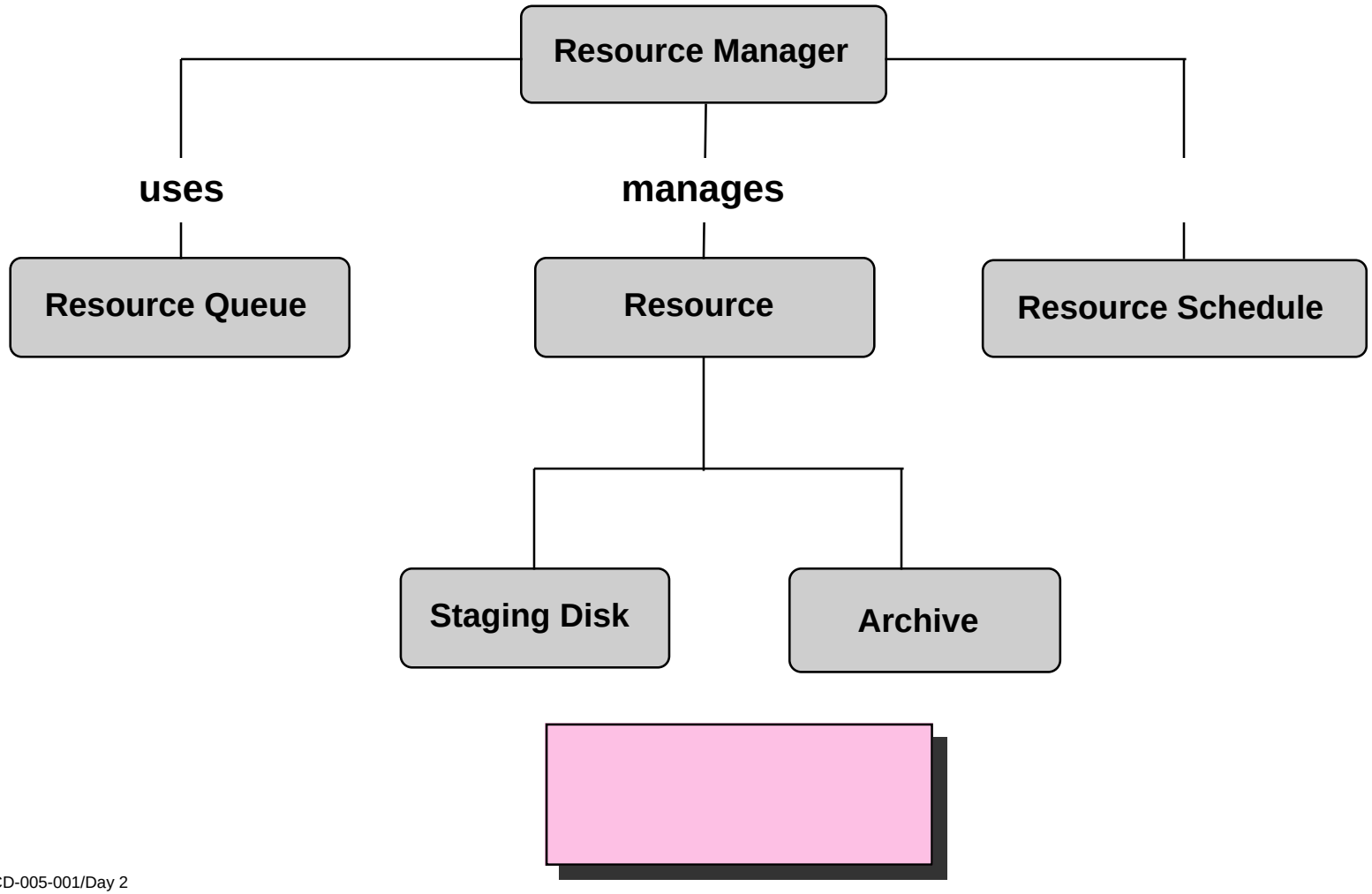


- **Data Integrity – Eternal Preservation**
- **Data Security – Guarantee against loss of data**
- **Tunability to support changing DAAC backup strategies and/or requirements**
- **Flexibility to quickly restore archived data**
- **Capacity of DAAC Hardware to support design**
- **Minimization of adverse operational performance impacts to archive files**
- **Minimization of manual DAAC operations intervention**

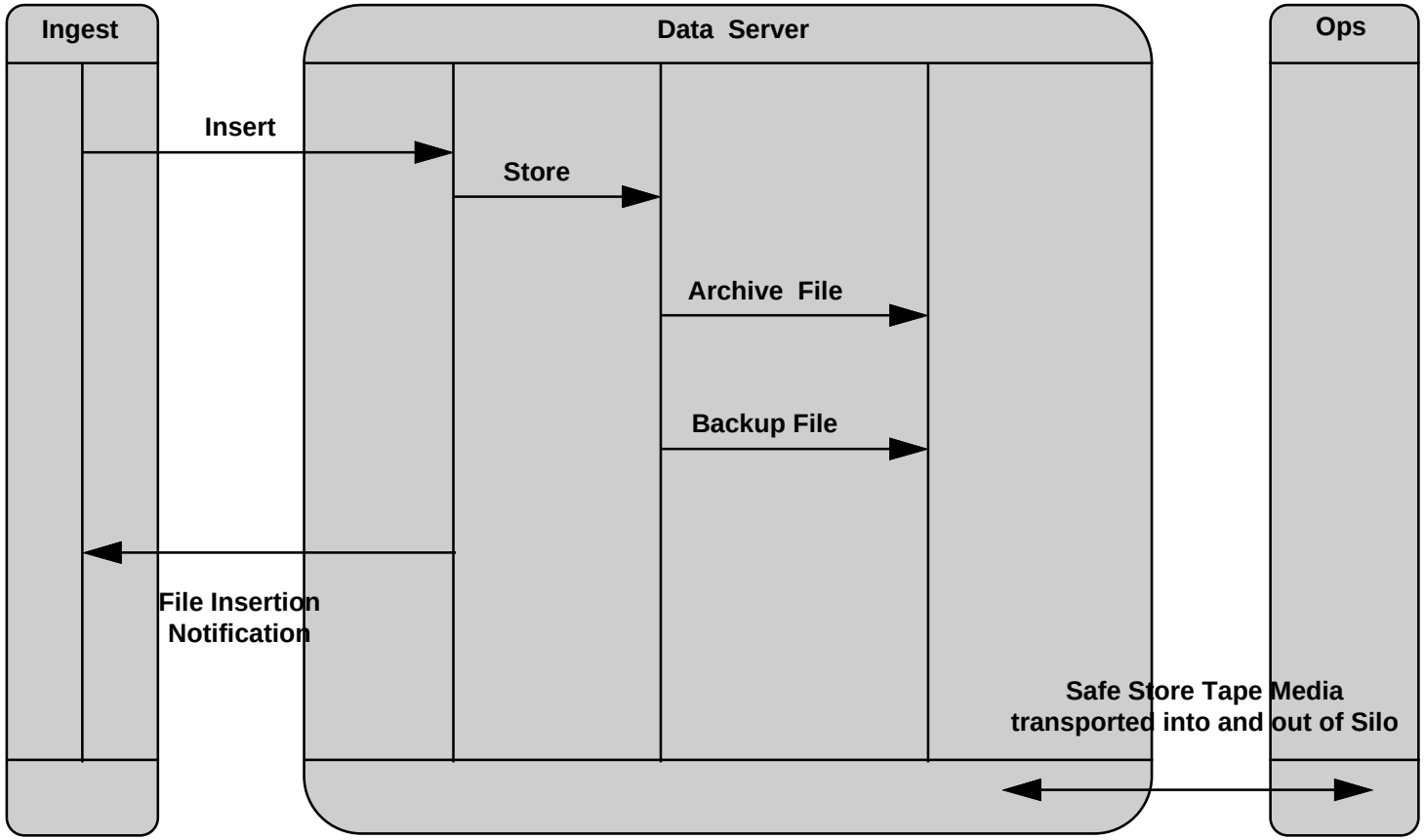
New/Enhanced Release B Features

- **Tool to query COTS product for archive media contents**
- **Tool to report safe store information**
- **Archive Data Backup Service**
- **Archive Data Restore Service**

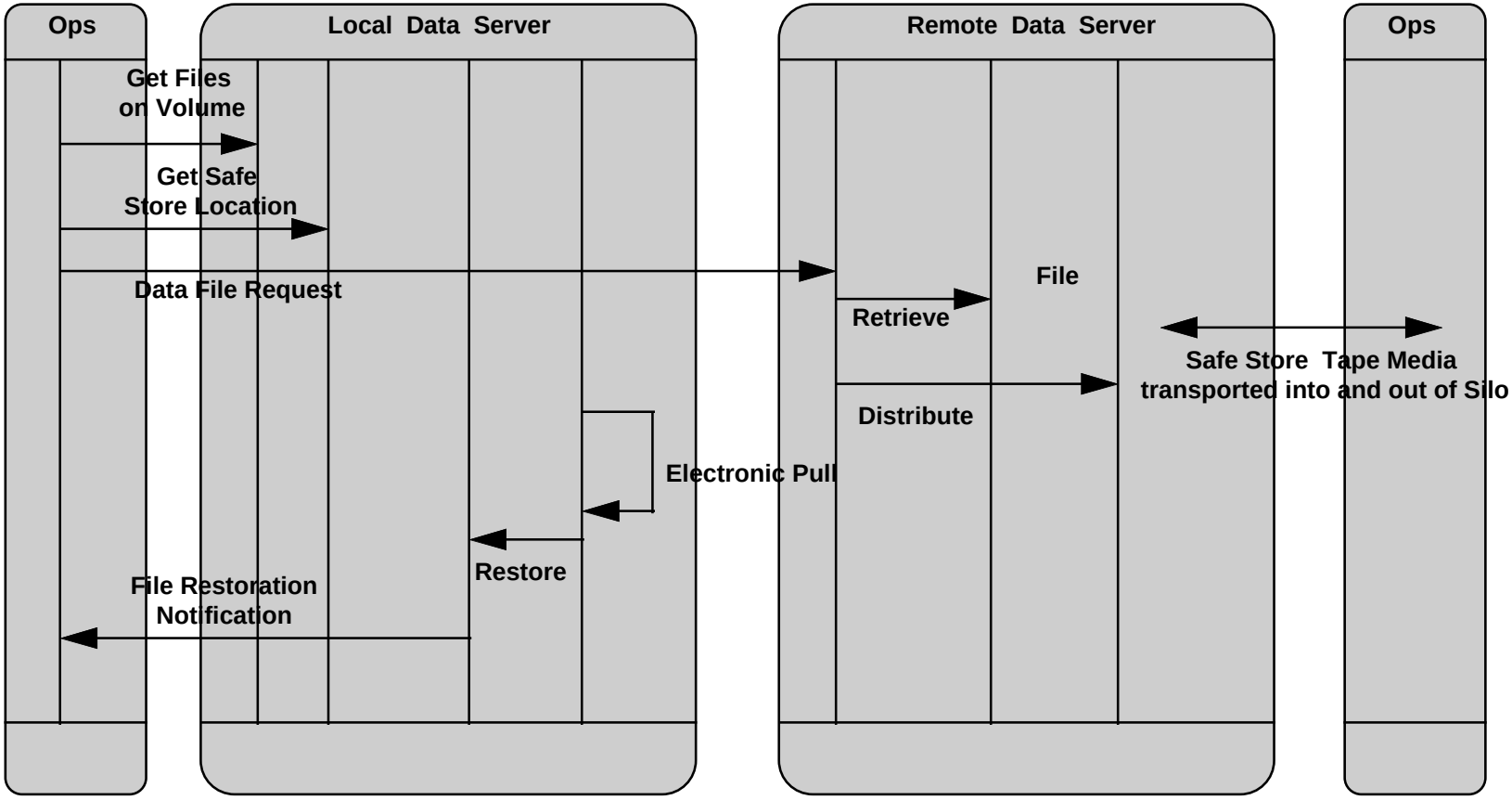
Software Design
High Level Class Model



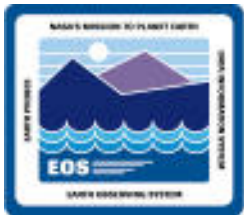
Software Design – Archive Backup Event Trace (High level)



Software Design – Archive Restore Event Trace (High level)



Current Status



COTS Selection

- AMASS COTS product will perform backups

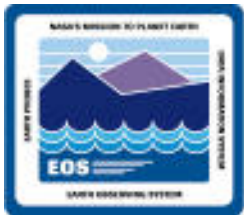
Prototypes

- Core Data Server Prototype to be used as test bed

Next Steps

- Determine data to be backed up
- Determine volume of data
- Select safe store DAAC locations
- Decide upon mechanisms supporting DAAC - DAAC data transfers
- Design Issue Team currently in progress

Summary



Design is driven by volume of data to be backed up

Backups will be performed on archive tape media

Backups are performed in real time as files are archived

Backups will be safe-stored at offsite DAACs

File restoration performed via electronic data transfers between DAACs

Archive Data Backup and Restoration is not totally automated; operations intervention is required